



April 27, 2021

The Honorable Cathy McMorris Rodgers  
Ranking Member  
Energy and Commerce Committee  
Washington, D.C. 20515

Dear Ranking Member McMorris Rodgers,

In preparation for the Subcommittee on Health's hearing on April 28, 2021 entitled "The Long Haul: Forging a Path Through the Lingering Effects of COVID-19", we write regarding COVID-19 immunity, specifically understanding diversity and addressing disparity in health care research.

As you know, the Allen Institute located in Seattle, Washington is one of the nation's premier research institutes dedicated to unlocking the complexities of bioscience and advancing our knowledge to improve human health. Using an open science, multi-scale, team-oriented approach, the Allen Institute focuses on accelerating foundational research, developing standards and models, and cultivating new ideas to make a broad, transformational impact on science.

Today, we have over 148 million confirmed cases of COVID-19 documented globally, which has resulted in over 3.12 million deaths with serious morbidity effects and ongoing health concerns in a much broader global population. A heartfelt statistic is that the United States alone has had over 572,000 deaths during this pandemic. An astonishing statistic which does not get enough attention is that the burden of the deaths and accompanying morbidity across the nation are in underserved populations including indigenous Americans, African Americans, Pacific Islanders and Hispanic/Latino Americans. Recent research suggests that approximately 500 plus deaths occur in these populations for about every 100 deaths in the white American population per 100,000 subjects.

There are many socioeconomic and cultural reasons that are often cited to explain these staggering statistics including lack of access to health care, the extensive use of public transportation, crowded living conditions including multigenerational families and occupations that involve frequent face to face interactions. As highlighted by many in the federal government since the beginnings of the pandemic, the presence of racism in our health care system poses a significant problem as well. While we believe that many of these conditions clearly contribute to negative COVID-19 outcomes; these underserved populations are profoundly understudied.



In the tens of thousands of scientific publications published and/or posted in reprint servers surrounding the COVID-19 pandemic, surprisingly few are focused on studying people of color in the U.S. population. Therefore, in collaboration with our partners, the Allen Institute for Immunology has successfully completed initial deep immune profiling studies in Seattle-Tacoma residents who acquired the virus in the community, including first responders and volunteers from the region over many months of follow-up. These studies revealed a rich heterogeneity of the mild to moderate disease category, differential paths to convalescence/wellness and in a subpopulation, a skewed immune dysfunction associated with long hauler symptoms. Specific results are in the process of being submitted for a peer review publication on key disease signatures from deep immune profiling of mild to moderate disease volunteers in these longitudinal studies.

These successful pilot studies have demonstrated a proven pipeline to ascertain immune dysfunction and outcomes applicable to any human condition or population. As the immune system is emerging as a key predictor of either good or bad outcomes in the pandemic, extending this scalable model for immune system profiling to local underserved populations is both timely and informative to detect and prevent a downward spiral of vulnerable patients in this pandemic and into the future. **Therefore, we encourage this Committee to support further federal investment dedicated to expanding this important research to ensure equality for our nation's underserved communities in regard to COVID-19 research leading to subsequent optimized, personalized care for our diverse population.**

We greatly appreciate your attention to this important issue, and look forward to working with you and your colleagues to address research gaps in immunology related to COVID-19 and future pandemics. Should you have any questions, please do not hesitate to reach out to me directly at [tomb@alleninstitute.org](mailto:tomb@alleninstitute.org).

Sincerely,



Thomas F. Bumol, Ph.D.  
Executive Vice President and Director  
Allen Institute for Immunology